

In the Claims

1. (currently amended) A cationic catalysis system comprising an initiator (I), a catalyst (K) and a cocatalyst (CoK), wherein the cocatalyst (CoK) is an agent which releases the polymerization active center from its counterion generated by the reaction between the catalyst (K) and the initiator (I).
2. (canceled)
3. (currently amended) The catalytic system as claimed in ~~claim 2, characterized in that~~ claim 1, wherein the cocatalyst (CoK) is a molecule having at least one double bond depleted in electrons by an electron-withdrawing group.
4. (currently amended) The catalytic system as claimed in claim 3, ~~characterized in that~~ wherein the cocatalyst (CoK) is ~~taken~~ selected from the group of complexing agents consisting of o-chloranil (3,4,5,6-tetrachloro-1,2-benzoquinone), p-chloranil (2,3,5,6-tetrachloro-1,4-benzoquinone), nitrobenzene, trinitrobenzene, tetracyanoethylene, difluoronitrobenzene, pentafluorobenzene, hexafluorobenzene and octafluorotoluene.
5. (currently amended) The catalytic system as claimed ~~in one of the preceding claims~~ in claim 1, characterized in that wherein the catalyst (K) comprises an element (M) ~~belonging to selected from the group consisting of~~ Groups IB, IIB and A, IIIB and IIIA, IVB and IVA, VB and VA, and VIIIB of the Periodic Table of the Elements.
6. (currently amended) The catalytic system as claimed in claim 5, ~~characterized in that~~ wherein the element (M) is ~~taken~~ selected from the group consisting of the chemical elements B, Ti, Sn, Al, Hf, Zn, Be, Sb, Ga, In, Zr, V, As and Bi.
7. (currently amended) The catalytic system as claimed ~~in either of claims 5 and 6 in~~ claim 5, characterized in that wherein the catalyst (K) is a Lewis acid of general formula R_nMX_{3-n} for M an element belonging to Group IIIA, of general formula MX_4

for M an element belonging to Groups VA, IVA and IVB, and of general formula MX_5 for M an element belonging to Group VB, with:

- R a monovalent radical taken from the group consisting of trifluoromethylsulfonate, hydrocarbon groups with 1 to 12 carbon atoms of alkyl, aryl, arylalkyl, alkylaryl or cycloalkyl type, and alkoxys;
- X a halogen atom taken from the group F, Cl, Br and I;
- n an integer from 0 to 3.

8. (currently amended) The catalytic system as claimed in ~~one of claims 5 to 7~~ claim 5, ~~characterized in that~~ wherein the catalyst is taken selected from the group consisting of $TiCl_4$, $ZrCl_4$, $SnCl_4$, VCl_4 , SbF_5 , $AlCl_3$, $AlBr_3$, BF_3 , BCl_3 , $FeCl_3$, $EtAlCl_2$, $Et_{1.5}AlCl_{1.5}$, Et_2AlCl , $AlMe_3$ and $AlEt_3$.
9. (currently amended) The catalytic system as claimed in ~~one of the preceding claims~~ claim 5, ~~characterized in that~~ wherein the initiator (I) can be a monofunctional molecule (I1), a difunctional molecule (I2), a molecule substituted by one or more halogen atoms (I3) or a Brønsted acid (I4).
10. (currently amended) A process for the cationic polymerization of C_3 to C_{10} monomers involving a catalytic system ~~as claimed in one of the preceding claims~~ comprising an initiator (I), a catalyst (K) and a cocatalyst (CoK), wherein the cocatalyst (CoK) is an agent which releases the polymerization active center from its counterion generated by the reaction between the catalyst (K) and the initiator (I).
11. (currently amended) The process as claimed in claim 10, ~~characterized in that~~ wherein the monomers are taken selected from the group consisting of dimethylketene, isobutylene, but-1-ene, 4-methylpent-1-ene, oct-1-ene, 2-methylbut-1-ene, 3-methylbut-1-ene, 2-methylbut-2-ene, styrene, styrenes substituted by alkyl radicals, such as α -methylstyrene, or p-methylstyrene, halosubstituted styrenes, such as p-chlorostyrene, propylene, isopentene, vinyl monomers, in general and vinyl ethers in particular, diolefins or cyclo diolefins with conjugated dienes, such as 1,3-butadiene, 2,3-dimethyl-1,3-butadiene, hexadiene, myrcene, 6,6-dimethylfulvene, piperylene, isoprene, cyclopentadiene, cyclohexadiene, or vinyl norbornene, and

β-pinene.

12. (currently amended) A polymer ~~capable of being obtained~~ polymerized by the process as claimed ~~in either of claims 10 and 11~~ claim 10.
13. (canceled)